

DEVELOPMENT OF HERBAL VAGINAL GEL FORMULATION AND TECHNOLOGY

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Introduction. The herbal vaginal gel extracted from herbal material can be used to treat bacterial vaginosis, vaginal dryness caused by yeast infection and/or in women with experiencing post-menopausal stage.

This medicine of local action will quick up the treatment and because it possesses plant material, this is an advantage on the therapeutic effect.

The composition of herbal vaginal gel was formulated at Industrial Pharmacy department. The research work was supervised by Associate Professor Mansky A.A. and Associate Professor Sichkar A.A.

Aim. The aim is to successfully formulate a gel that will have optimal healing properties for bacterial vaginosis infections.

Materials and methods. Tea tree oil (*melaleuca alternifolia*), sage oil (*salvia officinalis*), calendula oil (*calendula officinalis*).

Results and discussion. Among the medicinal plant material that we will use to make the gel for vaginal vaginosis are sage, tea tree oil and calendula. Pot marigold or *C. officinalis*, calendula comes from the latin word *calendae* "little calendar". It is from the *asteraceae* family with genus of 15 to 20 species traced way back to ancient Egypt to have rejuvenating properties. It has great anti-inflammatory action, inflamed and itchy skin conditions.

Bacterial vaginosis main side effect is unpleasant fish - like vaginal odor, discharge when present sometimes appears white or grey and thin in appearance. Tea tree oil because of its antimicrobial and antifungal effects will help in the treatment by selective control of pathogenic microflora enclosing *Candida albicans* infections.

Sage or *salvia* from the *Lamiaceae* family expresses or promotes the toxin elimination hence natural way of body's purification used several thousands years ago.

The choice of the gel agent to create a stable gel system with a complex of herbal oils have been theoretically substantiated and experimentally confirmed. Composition and rational technology of the gel with a complex of essential oils have been designed.

Conclusions. The medicinal plants substances used in the creation of vaginal gel for the treatment of bacterial vaginosis are tea tree, sage and calendula oils. The action of these three herbal oils may bring mucosal restoration, soothing and protective properties.